

ABSTRACT

A process for preparing 5,5'-bi-1H-tetrazolediammonium salts ($\text{BHT} \cdot 2\text{NH}_3$) maintaining a high yield through oxaldiimidic acid dihydrazide (OAH) from the starting materials which are cheaply available and are easy to handle. The 5,5'-bi-1H-tetrazolediammonium salts ($\text{BHT} \cdot 2\text{NH}_3$) are prepared by dissolving the oxaldiimidic acid dihydrazide (OAH) obtained by the reaction of hydrated hydrazide with dicyan in an aqueous solution of a weakly acidic compound such as acetic acid, dropwisely adding an aqueous solution of sodium nitrite thereto to form an azide thereof and to effect the cyclization reaction by heating, adding an aqueous solution of sodium hydroxide to the reaction product to convert it into a 5,5'-bi-1H-tetrazoledisodium salt ($\text{BHT} \cdot 2\text{Na}$), reacting it with an aqueous solution of ammonium chloride, and recovering the formed ammonium salt as sparingly soluble crystals.

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